

SIM-SWAP API

The SIM swap API provides a programmable interface for developers and other users (capabilities consumers) to request the last date of a SIM swap performed on the mobile line, or, to check whether a SIM swap has been performed during a past period.

Introduction

The SIM Swap API performs real-time checks on the activation date of a SIM card on the mobile network. It reveals if an individual mobile phone number (MSISDN) has been ported to another SIM card.

The SIM Swap API is useful to prevent fraud by reducing the risk of account takeover fraud by strengthening SIM based authentication processes such as SMS One-time passwords. Fraudsters are using SIM swap techniques to intercept SMS messages and reset passwords or receive verification codes that allow them to access protected accounts.

This API is used by an application to get information about a mobile line latest SIM swap date. It can be easily integrated and used through this secured API and allows SPs (Service Provider) to get this information an easy & secured way. The API provides management of 2 resources answering 2 distinct questions:

- When did the last SIM swap occur?
- Has a SIM swap occurred during last n hours?

Depending on the network provider implementation, legal enforcement, etc... either one or both resources could be implemented.

Relevant terms and definitions

- **SIM swap** : A SIM swap is a process in which a mobile phone user's current SIM card is deactivated or replaced with a new one. This is typically done by contacting the user's mobile service provider and requesting a new SIM card for various reasons, such as a lost or damaged SIM card, upgrading to a new phone, or changing phone numbers while keeping the same device.

API functionality

The API provides 2 operations:

- POST retrieve-date : Provides timestamp of latest SIM swap, if any, for a given phone number.
- POST check: Checks if SIM swap has been performed during a past period (defined in the request with 'maxAge' attribute) for a given phone number.

OpenAPI Specification



play-sim-swap-openapi.json

Example requests

/api/sim-swap/retrieve-date

```
curl -X 'POST' \
```

```
'http://{domain}/api/sim-swap/retrieve-date' \
```

```
-H 'Accept: application/json' \
```

```
-H 'Content-Type: application/json' \
```

```
-d '{
```

```
"msisdn": "48790100200"
```

```
}'
```

- 200 - data ok

```
{
```

```
"latestSimChange": "2024-09-26T11:00:53+02:00"
```

```
}
```

- 200 - data older than 72h

```
{
```

```
"latestSimChange": null
```

```
}
```

- 404 - number msisdn not found

```
{
  "code": "SIM_SWAP.UNKNOWN_PHONE_NUMBER",
  "message": "SIM Swap can't be checked because the phone number is unknown",
  "status": 404
}
```

- 503 – backend unavailable

```
{
  "code": "UNAVAILABLE",
  "message": "Service unavailable",
  "status": 503
}
```

[/api/sim-swap/check](#)

```
curl -X 'POST' \
  'http://{domain}/api/sim-swap/check' \
  -H 'accept: application/json' \
  -H 'Content-Type: application/json' \
  -d '{
    "maxAge": 72,
    "msisdn": "48790100200"
  }'
```

- 200 - data ok

```
{
  "swapped": true
}
```

- 200 - data older than 72h

```
{
```

```
"swapped": false  
}
```

- 404 – number msisdn not found

```
{  
  "code": "SIM_SWAP.UNKNOWN_PHONE_NUMBER",  
  "message": "SIM Swap can't be checked because the phone number is unknown",  
  "status": 404  
}
```

- 503 – backend unavailable

```
{  
  "code": "UNAVAILABLE",  
  "message": "Service unavailable",  
  "status": 503  
}
```